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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/586,654

08/14/2006

Yasuo Hirooka

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25944 7590 01/09/2009

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ALEXANDRIA, VA 22320-4850

EXAMINER

KRAMER, DEAN J

ART UNIT

PAPER NUMBER

3652

MAIL DATE

DELIVERY MODE

01/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/586,654 | Applicant(s) HIROOKA ET AL. | |
| | Examiner Dean J. Kramer | Art Unit 3652 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6 and 8-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6 and 8-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Doren et al. (5,700,046).

The patent to Van Doren et al. shows a substrate handling device in Figure 8 comprising first and second guiding members (shown as the innermost and outermost elements 50 on member 56), first and second movable members (shown as the innermost and outermost elements 50 on member 60 disposed directly across from the first and second guiding members), a support member (shown as element 50 located between the first and second movable members on arm 60), and a driving means (58,62,64). As best shown in Figure 10, the guiding members and movable members are spaced apart wider than an arc of a cut segment on the wafer.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, 6, and 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebbing et al. (6,155,773) in view of Rogers et al. (7,300,082).

The Ebbing et al. patent shows a substrate holding device (see Fig. 6) comprising a pair of fixed guiding members (68,70) at the distal end of the device and a pair of movable members (90) disposed directly opposite the guiding members at the proximal end of the device. The patent to Ebbing et al. does not specifically disclose a support between the movable members at the proximal end of the device as is called for in claim 1 of the instant application.

However, the Rogers et al. patent shows a device substantially similar to the Ebbing et al. assembly, but the Rogers et al. device specifically shows supports (124,126) disposed between its movable members (see Fig. 11).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide at least one support member between the movable members (90) of Ebbing et al. as taught by Rogers et al. in order to provide additional support for a wafer prior to actuating the movable members.

Regarding claims 3 and 9, the Rogers et al. device shows its movable members (216) as having an inner surface substantially complimentary to the outer circumference of the wafer being handled.

In regard to claims 5 and 10-12, Figure 8A of Rogers et al. shows a downwardly oriented pressing surface (220) on its movable member for creating a more secure clamping force against the wafer's edge.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ebbing et al. in view of Rogers et al. as applied to claim 1 above, and further in view of Shendon et al. (6,513,848).

The patent to Shendon et al. show an embodiment in Figures 10 and 11 comprising a pair of movable members (111) flanking a relatively large fixed support (unreferenced but shown in phantom lines in Figs. 10 and 11).

It would have been obvious to a person having ordinary skill in the art to form the proximal fixed support member of the modified Ebbing device, as was presented above in section 4, as a relatively large arcuate support similar to that shown in Figs 10 and 11 of the Shendon et al. patent. The resulting support could obviously be longer than the length of an arc of a segment cut off from a wafer (depending on the specific dimensions of the wafer itself) in order to provide additional lower support for the wafer being handled.

Drawings

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "40". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If

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the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

7. The abstract of the disclosure is objected to because it contains legal phraseology such as “means” which should be avoided. Correction is required. See MPEP § 608.01(b).

8. The disclosure is objected to because of the following informalities: In line 5 of paragraph [0040], the reference number “563b” should be changed to –53b--.

Appropriate correction is required.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Govzman et al. patent shows a downwardly oriented pressing surface (80).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dean J. Kramer whose telephone number is (571) 272-6926. The examiner can normally be reached on Mon., Tues., Thurs., Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dean J Kramer/
Primary Examiner, Art Unit 3652

djk
1/5/09